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1636

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RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/646,825

DATE: 03/29/2001  
 TIME: 15:59:57

Input Set : A:\55022715.app  
 Output Set: N:\CRF3\03292001\I646825.raw

ENTERED

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3 <110> APPLICANT: MORI, SATOSHI
4   NAKANISHI, HIROMI
5   OKI, HIROYUKI
6   YAMAGUCHI, HIROTAKA
8 <120> TITLE OF INVENTION: METHOD FOR TRANSFORMING PLANT, THE RESULTANT PLANT AND
9   GENE THEREOF
11 <130> FILE REFERENCE: 55022 (71526)
13 <140> CURRENT APPLICATION NUMBER: 09/646,825
14 <141> CURRENT FILING DATE: 2000-09-22
16 <150> PRIOR APPLICATION NUMBER: JP/10-96637
17 <151> PRIOR FILING DATE: 1998-03-24
19 <160> NUMBER OF SEQ ID NOS: 38
21 <170> SOFTWARE: PatentIn Ver. 2.1
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 2092
25 <212> TYPE: DNA
26 <213> ORGANISM: Artificial Sequence
28 <220> FEATURE:
29 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
30   saccharomyces cerevisiae
32 <220> FEATURE:
33 <221> NAME/KEY: CDS
34 <222> LOCATION: (20)..(2077)
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38           Met Val Arg Thr Arg Val Leu Phe Cys Leu Phe
39           1           5           10
41 atc tct ttc ttc gct aca gtc caa tcg agc gct aca ctc atc tcc act 100
42 Ile Ser Phe Phe Ala Thr Val Gln Ser Ser Ala Thr Leu Ile Ser Thr
43           15           20           25
45 tca tgc att tct cag gct gca ctg tac cag ttc gga tgc tca agc aag 148
46 Ser Cys Ile Ser Gln Ala Ala Leu Tyr Gln Phe Gly Cys Ser Ser Lys
47           30           35           40
49 tca aag tct tgc tac tgc aag aac atc aat tgg ctc gga agc gtc act 196
50 Ser Lys Ser Cys Tyr Cys Lys Asn Ile Asn Trp Leu Gly Ser Val Thr
51           45           50           55
53 gca tgc gct tat gag aac tcc aaa tct aac aag act ctg gac tcc gct 244
54 Ala Cys Ala Tyr Glu Asn Ser Lys Ser Asn Lys Thr Leu Asp Ser Ala
55 60           65           70           75
57 ttg atg aaa ctt gcc agc caa tgc tca agt atc aag gtt tac aca ctg 292
58 Leu Met Lys Leu Ala Ser Gln Cys Ser Ser Ile Lys Val Tyr Thr Leu
59           80           85           90
61 gag gac atg aag aac atc tac ctt aat gca agt aac tac ctt cgc gct 340
62 Glu Asp Met Lys Asn Ile Tyr Leu Asn Ala Ser Asn Tyr Leu Arg Ala
63           95           100          105
65 cct gag aaa tcc gat aag aag aca gtt gtt tca caa ccg ttg atg gca 388
66 Pro Glu Lys Ser Asp Lys Lys Thr Val Val Ser Gln Pro Leu Met Ala

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67	110	115	120	
69	aat gag acg gcc tat cac tac tac tat gag gaa aac tat ggg atc cac	436		
70	Asn Glu Thr Ala Tyr His Tyr Tyr Tyr Glu Glu Asn Tyr Gly Ile His			
71	125	130	135	
73	ttg aat ttg atg cga tct caa tgg tgc gca tgg ggc ctc gtc ttc ttc	484		
74	Leu Asn Leu Met Arg Ser Gln Trp Cys Ala Trp Gly Leu Val Phe Phe			
75	140	145	150	155
77	tgg gtc gca gtc ctt acc gcc gca act atc ttg aac att ctc aaa cgc	532		
78	Trp Val Ala Val Leu Thr Ala Ala Thr Ile Leu Asn Ile Leu Lys Arg			
79	160	165	170	
81	gta ttc ggc aag aac att atg gca aat tct gtt aag aag tct ctt atc	580		
82	Val Phe Gly Lys Asn Ile Met Ala Asn Ser Val Lys Lys Ser Leu Ile			
83	175	180	185	
85	tac cca agc gtt tac aaa gac tac aac gag aga act ttc tat ctt tgg	628		
86	Tyr Pro Ser Val Tyr Lys Asp Tyr Asn Glu Arg Thr Phe Tyr Leu Trp			
87	190	195	200	
89	aaa cgt ttg cca ttc aac ttt aca act cga ggc aaa gga ctc gta gtt	676		
90	Lys Arg Leu Pro Phe Asn Phe Thr Thr Arg Gly Lys Gly Leu Val Val			
91	205	210	215	
93	ctt atc ttt gtc att ctg act att ctc tca ctc tct ttc gga cat aac	724		
94	Leu Ile Phe Val Ile Leu Thr Ile Leu Ser Leu Ser Phe Gly His Asn			
95	220	225	230	235
97	atc aag ttg cca cat cct tac gat aga cct aga tgg aga aga tca atg	772		
98	Ile Lys Leu Pro His Pro Tyr Asp Arg Pro Arg Trp Arg Arg Ser Met			
99	240	245	250	
101	gca ttc gtc tca cgc cgt gct gac ttg atg gca atc gct ctt ttc ccc	820		
102	Ala Phe Val Ser Arg Arg Ala Asp Leu Met Ala Ile Ala Leu Phe Pro			
103	255	260	265	
105	gtg gtg tac ctt ttc ggt atc cgg aac aac ccc ttc atc cca atc acc	868		
106	Val Val Tyr Leu Phe Gly Ile Arg Asn Asn Pro Phe Ile Pro Ile Thr			
107	270	275	280	
109	gga ttg agc ttt agt act ttc aac ttt tac cac aaa tgg tca gca tac	916		
110	Gly Leu Ser Phe Ser Thr Phe Asn Phe Tyr His Lys Trp Ser Ala Tyr			
111	285	290	295	
113	gtc tgc ttc atg tta gcc gtc gtc cat tca atc gtt atg acc gct tca	964		
114	Val Cys Phe Met Leu Ala Val Val His Ser Ile Val Met Thr Ala Ser			
115	300	305	310	315
117	gga gtt aaa cga gga gta ttc cag tct ctt gta agg aaa ttc tac ttc	1012		
118	Gly Val Lys Arg Gly Val Phe Gln Ser Leu Val Arg Lys Phe Tyr Phe			
119	320	325	330	
121	aga tgg gga ata gta gcc aca att ctt atg tcc atc atc att ttc cag	1060		
122	Arg Trp Gly Ile Val Ala Thr Ile Leu Met Ser Ile Ile Phe Gln			
123	335	340	345	
125	tcc gag aag gtc ttc agg aac cga ggt tat gaa atc ttc tta ctt att	1108		
126	Ser Glu Lys Val Phe Arg Asn Arg Gly Tyr Glu Ile Phe Leu Leu Ile			
127	350	355	360	
129	cac aaa gcc atg aac atc atg ttt atc ata gct atg tat tac cat tgc	1156		
130	His Lys Ala Met Asn Ile Met Phe Ile Ile Ala Met Tyr Tyr His Cys			
131	365	370	375	

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133 cac aca cta gga tgg atg ggc tgg atc tgg tcc atg gct ggc atc ctc 1204
134 His Thr Leu Gly Trp Met Gly Trp Ile Trp Ser Met Ala Gly Ile Leu
135 380 385 390 395
137 tgc ttc gac agg ttc tgc cga att gta cgt atc atc atg aac gga ggt 1252
138 Cys Phe Asp Arg Phe Cys Arg Ile Val Arg Ile Ile Met Asn Gly Gly
139 400 405 410
141 ctt aag acc gcc act ttg tgc acc aca gat gat tct aac gtt atc aag 1300
142 Leu Lys Thr Ala Thr Leu Ser Thr Thr Asp Asp Ser Asn Val Ile Lys
143 415 420 425
145 atc tct gtc aag aag cct aag ttc ttc aag tat caa gtg gga gca ttt 1348
146 Ile Ser Val Lys Lys Pro Lys Phe Phe Lys Tyr Gln Val Gly Ala Phe
147 430 435 440
149 gcc tat atg tac ttt ctt tca cca aaa tca gcc tgg ttc tac agt ttt 1396
150 Ala Tyr Met Tyr Phe Leu Ser Pro Lys Ser Ala Trp Phe Tyr Ser Phe
151 445 450 455
153 caa tct cat ccc ttc aca gtc cta tca gaa agg cac aga gat cct aac 1444
154 Gln Ser His Pro Phe Thr Val Leu Ser Glu Arg His Arg Asp Pro Asn
155 460 465 470 475
157 aac cca gat caa cta act atg tac gtc aaa gct aac aag ggc att acg 1492
158 Asn Pro Asp Gln Leu Thr Met Tyr Val Lys Ala Asn Lys Gly Ile Thr
159 480 485 490
161 aga gta ctt ctt agc aaa gtt cta agc gct cca aac cat acc gtt gat 1540
162 Arg Val Leu Leu Ser Lys Val Leu Ser Ala Pro Asn His Thr Val Asp
163 495 500 505
165 tgc aag att ttc tta gag gga cca tat ggc gta act gtc cct cac att 1588
166 Cys Lys Ile Phe Leu Glu Gly Pro Tyr Gly Val Thr Val Pro His Ile
167 510 515 520
169 gcc aaa ctt aag aga aat cta gta gga gta gct gcg ggc ctc ggc gtg 1636
170 Ala Lys Leu Lys Arg Asn Leu Val Gly Val Ala Ala Gly Leu Gly Val
171 525 530 535
173 gca gcc atc tac ccc cat ttc gta gaa tgc ctt aga ttg cct agc act 1684
174 Ala Ala Ile Tyr Pro His Phe Val Glu Cys Leu Arg Leu Pro Ser Thr
175 540 545 550 555
177 gat caa ctg cag cac aag ttc tac tgg atc gtc aac gac ctt agt cac 1732
178 Asp Gln Leu Gln His Lys Phe Tyr Trp Ile Val Asn Asp Leu Ser His
179 560 565 570
181 ctt aag tgg ttc gaa aac gag cta caa tgg ctt aag gag aaa tct tgt 1780
182 Leu Lys Trp Phe Glu Asn Glu Leu Gln Trp Leu Lys Glu Lys Ser Cys
183 575 580 585
185 gaa gtc tct gtc atc tac act ggg tca tca gtg gag gat aca aac tca 1828
186 Glu Val Ser Val Ile Tyr Thr Gly Ser Ser Val Glu Asp Thr Asn Ser
187 590 595 600
189 gat gag tcc act aag ggt ttc gat gag aag gaa gaa tct gaa atc acc 1876
190 Asp Glu Ser Thr Lys Gly Phe Asp Asp Lys Glu Glu Ser Glu Ile Thr
191 605 610 615
193 gta gaa tgc ctt aac aag agg cca gac ctc aaa gag cta gtg aga tca 1924
194 Val Glu Cys Leu Asn Lys Arg Pro Asp Leu Lys Glu Leu Val Arg Ser
195 620 625 630 635
197 gag atc aaa ttg tca gaa ctc gag aac aac aac atc act ttc tac tca 1972

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198 Glu Ile Lys Leu Ser Glu Leu Glu Asn Asn Asn Ile Thr Phe Tyr Ser
199          640          645          650
201 tgc gga cca gcg act ttc aat gac gac ttt agg aat gca gtt gta caa 2020
202 Cys Gly Pro Ala Thr Phe Asn Asp Asp Phe Arg Asn Ala Val Val Gln
203          655          660          665
205 ggt atc gat tct agt ctg aag ata gat gtc gaa cta gag gag gag agt 2068
206 Gly Ile Asp Ser Ser Leu Lys Ile Asp Val Glu Leu Glu Glu Glu Ser
207          670          675          680
209 ttt act tgg taagagctca agctt 2092
210 Phe Thr Trp
211          685
214 <210> SEQ ID NO: 2
215 <211> LENGTH: 686
216 <212> TYPE: PRT
217 <213> ORGANISM: Artificial Sequence
219 <220> FEATURE:
220 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
221      saccharomyces cerevisiae
223 <400> SEQUENCE: 2
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225 1          5          10          15
227 Thr Val Gln Ser Ser Ala Thr Leu Ile Ser Thr Ser Cys Ile Ser Gln
228          20          25          30
230 Ala Ala Leu Tyr Gln Phe Gly Cys Ser Ser Lys Ser Lys Ser Cys Tyr
231          35          40          45
233 Cys Lys Asn Ile Asn Trp Leu Gly Ser Val Thr Ala Cys Ala Tyr Glu
234          50          55          60
236 Asn Ser Lys Ser Asn Lys Thr Leu Asp Ser Ala Leu Met Lys Leu Ala
237 65          70          75          80
239 Ser Gln Cys Ser Ser Ile Lys Val Tyr Thr Leu Glu Asp Met Lys Asn
240          85          90          95
242 Ile Tyr Leu Asn Ala Ser Asn Tyr Leu Arg Ala Pro Glu Lys Ser Asp
243          100          105          110
245 Lys Lys Thr Val Val Ser Gln Pro Leu Met Ala Asn Glu Thr Ala Tyr
246          115          120          125
248 His Tyr Tyr Tyr Glu Glu Asn Tyr Gly Ile His Leu Asn Leu Met Arg
249          130          135          140
251 Ser Gln Trp Cys Ala Trp Gly Leu Val Phe Phe Trp Val Ala Val Leu
252 145          150          155          160
254 Thr Ala Ala Thr Ile Leu Asn Ile Leu Lys Arg Val Phe Gly Lys Asn
255          165          170          175
257 Ile Met Ala Asn Ser Val Lys Lys Ser Leu Ile Tyr Pro Ser Val Tyr
258          180          185          190
260 Lys Asp Tyr Asn Glu Arg Thr Phe Tyr Leu Trp Lys Arg Leu Pro Phe
261          195          200          205
263 Asn Phe Thr Thr Arg Gly Lys Gly Leu Val Val Leu Ile Phe Val Ile
264          210          215          220
266 Leu Thr Ile Leu Ser Leu Ser Phe Gly His Asn Ile Lys Leu Pro His
267 225          230          235          240

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269 Pro Tyr Asp Arg Pro Arg Trp Arg Arg Ser Met Ala Phe Val Ser Arg
270                               245                250                255
272 Arg Ala Asp Leu Met Ala Ile Ala Leu Phe Pro Val Val Tyr Leu Phe
273                               260                265                270
275 Gly Ile Arg Asn Asn Pro Phe Ile Pro Ile Thr Gly Leu Ser Phe Ser
276                               275                280                285
278 Thr Phe Asn Phe Tyr His Lys Trp Ser Ala Tyr Val Cys Phe Met Leu
279                               290                295                300
281 Ala Val Val His Ser Ile Val Met Thr Ala Ser Gly Val Lys Arg Gly
282 305                               310                315                320
284 Val Phe Gln Ser Leu Val Arg Lys Phe Tyr Phe Arg Trp Gly Ile Val
285                               325                330                335
287 Ala Thr Ile Leu Met Ser Ile Ile Ile Phe Gln Ser Glu Lys Val Phe
288                               340                345                350
290 Arg Asn Arg Gly Tyr Glu Ile Phe Leu Leu Ile His Lys Ala Met Asn
291                               355                360                365
293 Ile Met Phe Ile Ile Ala Met Tyr Tyr His Cys His Thr Leu Gly Trp
294                               370                375                380
296 Met Gly Trp Ile Trp Ser Met Ala Gly Ile Leu Cys Phe Asp Arg Phe
297 385                               390                395                400
299 Cys Arg Ile Val Arg Ile Ile Met Asn Gly Gly Leu Lys Thr Ala Thr
300                               405                410                415
302 Leu Ser Thr Thr Asp Asp Ser Asn Val Ile Lys Ile Ser Val Lys Lys
303                               420                425                430
305 Pro Lys Phe Phe Lys Tyr Gln Val Gly Ala Phe Ala Tyr Met Tyr Phe
306                               435                440                445
308 Leu Ser Pro Lys Ser Ala Trp Phe Tyr Ser Phe Gln Ser His Pro Phe
309                               450                455                460
311 Thr Val Leu Ser Glu Arg His Arg Asp Pro Asn Asn Pro Asp Gln Leu
312 465                               470                475                480
314 Thr Met Tyr Val Lys Ala Asn Lys Gly Ile Thr Arg Val Leu Leu Ser
315                               485                490                495
317 Lys Val Leu Ser Ala Pro Asn His Thr Val Asp Cys Lys Ile Phe Leu
318                               500                505                510
320 Glu Gly Pro Tyr Gly Val Thr Val Pro His Ile Ala Lys Leu Lys Arg
321                               515                520                525
323 Asn Leu Val Gly Val Ala Ala Gly Leu Gly Val Ala Ala Ile Tyr Pro
324                               530                535                540
326 His Phe Val Glu Cys Leu Arg Leu Pro Ser Thr Asp Gln Leu Gln His
327 545                               550                555                560
329 Lys Phe Tyr Trp Ile Val Asn Asp Leu Ser His Leu Lys Trp Phe Glu
330                               565                570                575
332 Asn Glu Leu Gln Trp Leu Lys Glu Lys Ser Cys Glu Val Ser Val Ile
333                               580                585                590
335 Tyr Thr Gly Ser Ser Val Glu Asp Thr Asn Ser Asp Glu Ser Thr Lys
336                               595                600                605
338 Gly Phe Asp Asp Lys Glu Glu Ser Glu Ile Thr Val Glu Cys Leu Asn
339                               610                615                620
341 Lys Arg Pro Asp Leu Lys Glu Leu Val Arg Ser Glu Ile Lys Leu Ser

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VERIFICATION SUMMARY

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